Notice of Allowability	Application No.	Applicant(s)
	09/960,006	CHATTERJEE ET AL.
	Examiner	Art Unit
	George L. Opie	2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Applicant's 25 February 2005 amendments and supporting remarks*.

2. ☒ The allowed claim(s) is/are _1-9, 14-22, now renumbered as 1-18._

3. ☒ The drawings filed on *20 September 2001* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None of the:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

       3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

        Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☒ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

ST. JOHN COURTENAY III
PRIMARY EXAMINER

Examiner's Amendment

An examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the Issue Fee.

Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably **accompany** the Issue Fee.

In a Telephone call on 15 April 2005, authorization for this Amendment was given by Mr. Marcel K. Bingham (Reg. No. 42,327).

The claims have been amended as specified by Applicant in the e-mail Amendment submitted 15 April 2005, which is attached hereto.

Contact Information:

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

Status information for published applications may be obtained from either Private-PAIR or Public-PAIR.

Status information for unpublished applications is available through Private-PAIR only.

For more information about the PAIR system, see   http://pair-direct.uspto.gov.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hand carried responses should be delivered to the *Customer Service Window* (Randolph Building, 401 Dulany Street, Alexandria, Virginia 22314) and, if submitting an electronic copy on floppy or CD, to expedite its processing, please notify the below identified examiner prior to delivery, so that the Applicant can "handoff" the electronic copy directly to the examiner.

. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

All responses sent by U.S. Mail should be mailed to:
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at **(571) 272-2100.**

. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Opie at 571-272-3766 or via e-mail at *George.Opie@uspto.gov.* Internet e-mail should not be used where sensitive data will be exchanged or where there exists a possibility that sensitive data could be identified unless there is an express waiver of the confidentiality requirements under 35 U.S.C. 122 by the Applicant. Sensitive data includes confidential information related to patent applications.

EXAMINER'S
Amendment

Please amend claims 1, 2, 4, 6, and 7 as follows. Please cancel claims 12 and 13. Please add *ALL VERSIONS OF* claims 14 – 22 as follows. *CLEAN COPY REPLACES PREVIOUS CLAIMS*

1   1. (Currently Amended) A method of managing a shared object in an object-oriented

2   environment, the method comprising the steps of:

3   generating only a single instance of said shared object in response to attempts by a

4   plurality of clients to create an instance of a particular object belonging to a

5   class to which said shared object belongs;

6   registering a plurality of observer objects by invoking, for each observer object of

7   said plurality of observer objects, a first method of said shared object to

8   register said each observer object to notify about an event related to an

9   execution requested by a first client of a particular operation;

10   wherein said plurality of clients include a~~the~~ first client;

11   each client of said plurality of clients invoking a second method of said shared object

12   to request execution of said particular operation; and

13   when the shared object performs the execution requested by the first client of the

14   particular operation, said shared object sending a first message about a first

15   event related to the execution requested by ~~the~~ said first client to each

16   observer object that has been registered to notify about an event related to the

17   execution requested by said first client of a particular operation.

1   2. (Currently Amended) The method of Claim 1, wherein the steps further include

2   sending a second message about another event related to the execution requested by

3   the first client of the particular operation to ~~said~~an observer object that was registered

4   by said first client.

1   3.   (Previously Presented) The method of Claim 2, wherein:

2   the step of each client of said plurality of clients invoking a second method includes

3   said first client invoking said second method to request execution of a first

4   operation that includes a first subtask and a second subtask;

5   wherein the first message to the observer object registered by the first client is sent in

6   response to completing execution of the first subtask; and

7   wherein the second message to the observer object registered by the first client is sent

8   in response to completing execution of the second subtask.

1   4.   (Currently Amended) The method of Claim 1, further including the step of the first

2   client invoking another method of said shared object to register another observer

3   object about another event related to the execution requested by said first client of

4   said particular operation; and

5   wherein said other method is different than said first method.

1   5.   (Original) The method of Claim 1, further including the step of said shared object

2   creating, for each client of said plurality of clients, a client specific object that stores

3   data associated with said each client.

1   6.   (Currently Amended) The method of Claim 5, wherein the method further includes

2   invoking a particular method of said client specific object created for said first client

3   that returns information that may be used to access thean observer object that was

4   registered by said first client.

1   7.   (Currently Amended) The method of Claim 5, wherein the steps further include:

2   said shared object invoking a method of said client specific object; and

3   in response to said shared object invoking the method of said client specific object,

4   storing a reference value to ~~the~~an observer object for said first client.

1   8.   (Original) The method of Claim 5, wherein the step of invoking the method of said

2   client specific object is performed in response to the attempt by said first client to

3   create an instance of a particular object belonging to a class to which said shared

4   object belongs.

1   9.   (Previously Presented) The method of claim 1, wherein the steps include:

2   for each client of said plurality of clients, performing the following steps when the

3   shared object performs the execution requested by said first client of the

4   particular operation:

5   identifying said each client;

6   determining whether said each client has registered an observer object about

7   the event related to the execution requested by said first client of the

8   particular operation; and

9   if said each client has registered an observer object, then sending a first

10   message to said observer object by invoking said second method of

11   said observer object.

1   10 - 13.   (Canceled)

14.   (New) A tangible computer-readable medium carrying one or more sequences of

instructions which, when executed by one or more processors, causes the one or more

processors to perform the method recited in Claim 1.

15.   (New) A tangible computer-readable medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 2.

16.   (New) A tangible computer-readable medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 3.

17.   (New) A tangible computer-readable medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 4.
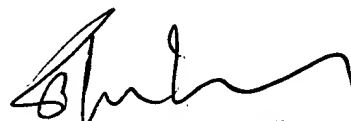
18.   (New) A tangible computer-readable medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 5.

19.   (New) A tangible computer-readable medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 6.

20.   (New) A tangible computer-readable medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 7.

21.   (New) A tangible computer-readable medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 8.

22. (New) A tangible computer-readable medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 9.

ST. JOHN COURTENAY III
PRIMARY EXAMINER